

Application No.: 10/670,670  
Docket No.: PE0673 US CIP

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Listing of Claims

1. (Canceled)
2. (Previously Presented) A composition comprising an aqueous dispersion of an electrically conductive organic polymer and a plurality of nanoparticles wherein said electrically conductive organic polymer is selected from polyaniline with poly(2-acrylamido-2-methyl-1-propanesulfonic acid) as the counterion (Pani/PAAMPSA), polythiophene and poly(ethylenedioxythiophene) with poly(styrenesulfonic acid) as the counterion (PEDT/PSS) and wherein nanoparticles are selected from the group consisting of inorganic nanoparticles, organic nanoparticles, and mixtures thereof.
3. (Canceled)
4. (Previously Presented) A composition according to claim 2, wherein said inorganic nanoparticles are selected from silica, alumina, electrically conductive metal oxides, and mixtures thereof.
5. (Previously Presented) A composition according to claim 2, wherein said organic nanoparticles are selected from polyacrylates, carbon nanotubes, perfluoroethylene sulfonates, and mixtures thereof.
6. (Previously Presented) A composition according to claim 2, wherein said nanoparticles have a particle size less than about 500 nm.
7. (Previously Presented) A composition according to claim 2, wherein said nanoparticles have a particle size less than about 250 nm.
8. (Previously Presented) A composition according to claim 2, wherein said nanoparticles have a particle size less than about 50 nm.
9. (Original) A composition according to claim 4, wherein the weight ratio of silica:electrically conductive polymer is about 4:1.
10. (Original) A composition according to claim 4, wherein the weight ratio of electrically conductive oxides:electrically conductive polymer is about 1.5:1.
11. (Previously Presented) A high resistance buffer layer comprising an electrically conductive polymer and a plurality of nanoparticles dispersed therein, wherein the nanoparticles are selected from the group consisting of inorganic nanoparticles, organic nanoparticles, and mixtures thereof.
12. (Original) A high resistance buffer layer according to claim 11, wherein said electrically conductive polymer is selected from Pani/PAAMPSA and PEDT/PSS.
13. (Canceled).

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14. (Previously Presented) A high resistance buffer layer according to claim 11, wherein said inorganic nanoparticles are selected from silica, alumina, electrically conductive metal oxides, and mixtures thereof.

15. (Previously Presented) A high resistance buffer layer according to claim 11, wherein said organic nanoparticles are selected from polyacrylates, carbon nanotubes, perfluoroethylene sulfonates, and mixtures thereof.

16. (Original) A high resistance buffer layer according to claim 11, wherein said layer has a conductivity of less than about  $1 \times 10^{-3}$  S/cm.

17. (Original) A high resistance buffer layer according to claim 11, wherein said layer has a conductivity of less than about  $1 \times 10^{-5}$  S/cm.

18. (Canceled)

19. (Canceled)

20. (Previously Presented) An organic device comprising a high resistance buffer layer comprising an electrically conductive polymer and a plurality of nanoparticles dispersed therein, wherein said nanoparticles comprise nanoparticles selected from inorganic nanoparticles, organic nanoparticles, and mixtures thereof.

21. (Previously Presented) A device according to claim 20, wherein said inorganic nanoparticles are selected from silica, alumina, electrically conductive metal oxides, and mixtures thereof.

22. (Previously Presented) A device according to claim 20, wherein said organic nanoparticles are selected from polyacrylates, carbon nanotubes, perfluoroethylene sulfonates, and mixtures thereof.

23. (New) A device according to claim 20, wherein said electrically conductive polymer is selected from PANi/PAAMPSA and PEDT/PSS.